

ABSTRACT

A single user detection (SUD) unit is used to detect the dedicated physical control channel (DPCCH) of a received signal. This reduces interference from other users, provides higher quality for the control channel detection, and achieves short processing delays. Consequently, the detected control channel being used to enhance the detection of the data channel part of the received signal. The data detection process performed on the data channel being enhanced by using channel estimate information generated by the SUD unit. The data detection process is performed by a Multi-user detector, a single user detector or any conventional detector.